## **DECLARATION STATEMENT**

Rocky Mountain Arsenal Offpost Operable Unit Commerce City, Colorado **DECLARATION FOR THE RECORD OF DECISION** 

SITE NAME AND LOCATION

Rocky Mountain Arsenal
Offpost Operable Unit

Commerce City, Adams County, Colorado

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Rocky Mountain Arsenal (RMA)

Offpost Operable Unit (OU) in southern Adams County, east of Commerce City, Colorado, chosen in

accordance with the Comprehensive Environmental Response, Compensation, and Liability Act

(CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of

1986, and the National Environmental Policy Act (NEPA), and, to the extent practicable, the National

Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the

administrative record file for the Offpost OU, and this document explains the basis and purpose of

the selected remedy for the Offpost OU.

**ASSESSMENT OF THE SITE** 

The Offpost Study Area risk assessment showed that even without remedial action, the baseline

cumulative cancer risks from contamination in surface water, soil, sediment, air, and groundwater are

within the acceptable cancer risk range established by the U.S. Environmental Protection Agency

(EPA). However, several site-specific factors suggest that remedial alternatives for groundwater

should be developed. These site-specific factors are: (1) groundwater contributes a maximum of

2 x 10<sup>-1</sup>, or approximately 75 percent of the total carcinogenic risk, (2) maximum contaminant levels

(MCLs), maximum contaminant level goals (MCLGs), and Colorado Basic Standards for Groundwater

(CBSGs) are exceeded for some groundwater contaminants, and (3) hazard indices (HIs) for children

exceed 1.0 in Zones 2, 3, and 4. Although the hazard indices exceed 1.0 in Zones 2, 3, and 4, the

bulk of the HI value is contributed through an assumed domestic use of alluvial groundwater, which

is not presently occurring and under this remedy is not intended to occur in the future. The elevated

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HIs occur only when considering the contribution of groundwater. Therefore, groundwater contamination is the focus of this decision document.

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this ROD, may present a potential threat to public health, welfare, or the environment.

## **DESCRIPTION OF THE REMEDY**

The Offpost OU is one of two OUs at RMA. The Onpost OU addresses the contamination within the 27 square miles of RMA. The Offpost OU addresses groundwater contamination north of RMA that migrated (1) before the RMA boundary groundwater extraction and treatment systems were installed, and (2) around the boundary systems prior to recent improvements. The selected remedy described in this Record of Decision (ROD) will permanently address contaminants at the site through treatment to reduce the toxicity, mobility, or volume of contaminants. Groundwater containment system remediation goals are based on the risk assessment and on federal Safe Drinking Water Act MCLs, proposed MCLs, nonzero MCLGs, and CBSGs. Action levels also meet those state drinking water standards found to be applicable or relevant and appropriate requirements (ARARs).

The major components of the selected remedy are as follows:

Operation of the Offpost Groundwater Intercept and Treatment System

Removal of contaminated groundwater from the alluvial and the weathered upper portion of the Denver Formation (hereafter called the unconfined flow system [UFS]) north of the RMA boundary in the First Creek and northern paleochannels using groundwater extraction wells

Treatment of the organic chemicals of concern (COCs) present in the groundwater using carbon adsorption

Recharge of treated groundwater to the UFS using wells and trenches

Natural attenuation of inorganic chloride and sulfate concentrations to meet applicable standards for groundwater in a manner consistent with the Onpost remedial action

- Continued operation of the North Boundary Containment System (NBCS) and the Northwest Boundary Containment System (NWBCS) In addition, the Irondale Contaminant System (ICS) will continue to operate, as required, for onpost contaminants consistent with the Irondale Interim Response Action (IRA). These containment systems will be operated to the requirements of Section 2.7 of the FFA, the Agreement for a Conceptual Remedy for the Cleanup of the Rocky Mountain Arsenal (Conceptual Remedy Agreement), and the onpost ROD, when it is signed. Cessation may occur as provided in Sections 35.3 and 35.4 of the FFA and paragraph 20 of the Conceptual Remedy Agreement.
- Improvements to the NBCS, NWBCS, ICS, and the Offpost Groundwater Intercept and Treatment System as necessary
- Long-term groundwater monitoring (including monitoring after groundwater treatment has
  ceased to assure continued compliance with the groundwater containment system remediation goals)
- Five-year site reviews
- Exposure control/provision of alternate water supply as follows:

As of the date of the Onpost ROD, and based on a .392 parts per billion (ppb) detection limit, the U.S. Army will use the last available quarterly monitoring results to determine the DIMP plume footprint.

As part of the Onpost ROD, the U.S. Army and Shell Oil company will pay for the extension of, and hook-up to, the current distribution system for all existing well owners within the DIMP plume footprint referenced above.

Existing domestic well owners outside of the DIMP plume footprint as of the date of the Onpost ROD where it is later determined that levels of DIMP are eight ppb or greater (or other relevant CBSG at the time) will be hooked up at the U.S. Army and Shell Oil Company's expense to the SACWSD distribution system or provided a deep well or other permanent solution.

For new domestic wells with DIMP levels of eight ppb or greater (or other relevant CBSG at the time), the Offpost ROD institutional controls will provide that the U.S. Army and Shell Oil Company will pay for hook-up to the distribution system or provided a deep well or other permanent solution.

Any user of a domestic well within the Offpost Operable Unit that contains ground-water contaminants derived from RMA at concentrations that exceed the greater of the remediation goals in Tables 7. 1 through 7.3 or the ARARs in Table 10.1 will be provided an alternative water supply. Bottled water will be provided for cooking and drinking until a permanent alternative water supply is provided. Permanent alternative water supplies could include installation of a deep uncontaminated well or connection to a municipal potable water-supply system. This commitment applies to both users of existing domestic wells and users of wells that are lawfully drilled in the future.

- Institutional controls to prevent the use of groundwater exceeding remediation goals.
- Closure of poorly constructed wells within the Offpost Study Area that could be acting as migration pathways for contaminants found in the Arapahoe Aquifer.

- The U.S. Army and Shell Oil Company agree to continue monitoring and to complete an assessment of the NDMA plume by June 13, 1996, using a 20 ppt method detection limit.
- The U.S. Army and Shell Oil Company agree to prepare a feasibility study of potential actions, both onpost and at the boundary, or adjacent to the boundary in order to achieve NDMA remediation goals at the RMA boundary and to use 7.0 ppt PRG or a certified analytical detection level readily available at a certified commercial laboratory (currently 33 ppt).
- The U.S. Army and Shell Oil Company agree to revegetate approximately 160 acres located in the southeast portion of Section 14 and the southwest portion of Section 13 as depicted in Figure 9.1. Revegetation will involve tilling and seeding. No sampling will be conducted before or after revegetation. Existing soil risks in the are to be revegetated fall within EPA; sestablish acceptable risk range and revegetation is not necessary. However, the U.S. Army and Shell Oil Company agree to the revegetation program as part of the offpost settlement.
- The Army will treat any contaminated extracted groundwater prior to discharge or reinjection so that it meets the current water quality standards established in the Colorado Basic Standards for Groundwater and the Colorado Basic Standards and Methodologies for Surface Water.
- As part of the Onpost remedy, the U.S. Army and Shell Oil Company will pay for and provide, or arrange for the provision, of 4000 acre-feet of water to SACWSD.

## STATUTORY DETERMINATIONS

The selected remedy is protective of human health and the environment, complies with federal and state requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. The remedy uses permanent solutions and alternative treatment technologies to the maximum extent practicable. The remedy satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element.

Because this remedy may result in hazardous substances remaining in the groundwater of the Offpost OU for more than five years, a review will be conducted within five years after commencement of remedial action to ensure that the remedy continues to adequately protect human health and the environment.

## SIGNATURE PAGE

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